Can We Really Reduce Our Cafeteria Waste?

CONTENT AREAS

- **Science**
  data collection and analysis
- **Health**
  nutrition

OBJECTIVES

Students will…

- scientifically survey and analyze the wastes produced in their school cafeteria
- design a plan to initiate and carry out source reduction for the cafeteria

MATERIALS

For each student and one for the entire class

- Cafeteria Trash and Waste Observations Data Table

TIME

Two periods
45 minutes each

One of the best places to get students to apply what they've learned about source reduction is in their own school lunchroom or cafeteria. Most likely, it's a place of obvious waste–with almost every student dumping food and packaging.

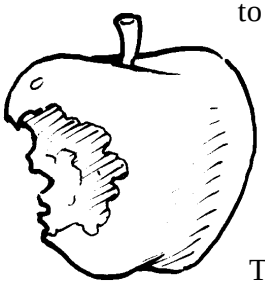
For this activity, your students will be able to collect significant data by surveying the waste habits of their peers. The activity is designed to last five days to ensure that the data collected will be fairly accurate.

To become familiar with the wastes in your cafeteria, you may wish to observe the lunchroom yourself before introducing the activity.

PART 1

Trash Detectives at Work

PROCEDURE



1. Inform students that they are all about to become Trash Detectives. For the next five days they will observe the waste habits of their peers during their lunch periods.

2. Provide each student with a copy of the Data Table–Cafeteria Trash and Waste Observations, for collecting their information. Students will use the table to record their observations of the trash habits of other students during lunch. As Trash Detectives, students will keep track of what students throw away or waste each day. The survey is simple and should not take more than a few minutes each day.

3. Keep a master data table in the classroom. Collate student data and display each day's results. You may want to copy this table onto posterboard.

4. At the end of the week, have students total their data. Then, as a class, determine a cumulative total and a cumulative ratio of trash items per student.

5. Discuss the survey results in terms of waste reduction. Have students devise a campaign to reduce the amount of cafeteria waste. Encourage students to use facts and figures as well as their creative ideas.

Here are some ideas and questions to get them started:

Questions

a. Do most students bring their lunch or buy the school lunch?

b. Did you notice any differences in type or quantity of waste generated by those who brought their lunch and those who bought it?

c. Is there one type of cafeteria food that students waste the most? The least?

d. What type of trash do students throw away the most? The least?

e. How will you introduce your idea? Morning announcements? Flyers? Posters? The school paper?

f. Was there more waste created by the students in the cafeteria or in the food preparation and service areas?

6. Have students present their plans to the class. Then as a class, use these ideas to develop a campaign against cafeteria waste. Make sure to involve school administrators, custodians and food service directors. To let students know if they are making a difference, use the same system as originally set up to collect data. Post the results in the cafeteria.

EXTENSIONS

1. Enlist the help of the school custodian or a member of the cafeteria staff to get an estimated volume and weight of a bag of cafeteria trash. How many bags does the cafeteria produce each day? What is the total weight of trash produced each day?

2. In some parts of the country, school cafeterias are buying milk in mini-sip pouches rather than cartons. Try to find out if they are available in your area. Research the pros and cons of using them, and then invite your Food Service Director to discuss the issue with your science class.

3. Have students discover the cost for the school to have its trash hauled away per month and year, and where the trash goes.

4. Challenge students to a Zero Waste Lunch Day, whereby students bring lunches that produce as little waste as possible. Some suggestions:

   - Pack lunches in canvas or nylon bags
   - If you use paper or plastic bags, reuse them
   - Pack items in reusable containers
   - Buy in bulk; avoid over-packaged foods
   - Make or buy larger amounts of fruits, puddings, and chips, pack them in reusable containers
   - Recycle bottles or use a thermos
   - Reuse plastic silverware.

5. Invite the cafeteria staff to discuss source reduction and share students' ideas. Ask the staff to help implement students' plans to reduce cafeteria waste. Discuss other options to help reduce cafeteria waste with such things as individual servings compared to self-service. Is it possible to have a self-serve bar for salad, fruit, rolls, and dessert?

DID YOU KNOW?

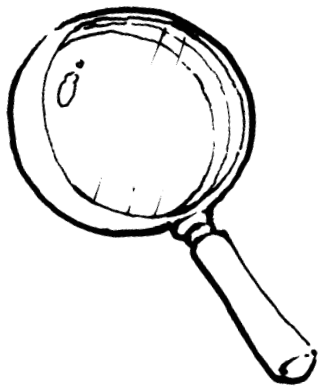
- Individual boxes of raisins cost 20 percent more and create 1,170 percent more garbage. Buy a two pound bag and package them in reusable containers.
- Individual bags of chips cost 30 percent more and create 1,220 percent more garbage. Buy large bags and pack them in plastic containers.

RESOURCES

For more information on lunch packaging, contact:

Polystyrene Packaging Council
1275 K Street, Suite 400
Washington, DC 20005

Foodservice & Packaging Institute
1901 N. Moore Street, Suite 1111
Arlington, VA 22209



The Great Disposable Debate

Once upon a time, school cafeterias washed their own dishes, trays and silverware. Today, many have switched to disposable items as a way to reduce costs and provide a more sanitary eating environment. Are the disposable items as environmentally friendly as their reusable counterparts?

Many studies suggest that the disposables may be a better choice, especially if schools do not currently have the equipment or space needed to effectively wash lunchroom items. Have your class debate the issue.

Remind them of the environmental costs of washing (use of water, chemicals and energy) as well as the costs related to disposables (increased landfilling, use of nonrenewable resources). Ask them to research the issue by contacting various government, industry and environmental groups. They should also talk to the school's Food Service Director.

Is there a clear answer? Challenge the class to find ways to reduce the impact of either system.

Cafeteria Trash and Waste Observations Data Table

	Day 1	Day 2	Day 3	Day 4	Day 5
	# Items	# Items	# Items	# Items	# Items
Number of students at my table					
Paper					
Foil					
Cans					
Bottles					
Juice Boxes					
Milk Cartons					
Plastic					
Food Scraps					
Other(s) Item 1					
Item 2					
Item 3					
Item 4					
Item 5					
Item 6					
Item 7					